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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/714,628 | 11/18/2003 | Koji Mackawa | 107156-00211 | 3249 |

7590 04/22/2005

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EXAMINER

ENSEY, BRIAN

| ART UNIT | PAPER NUMBER |
|----------|--------------|
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2643

DATE MAILED: 04/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--------------------------------------|--------------------------------------|--|
| Office Action Summary | Application No. 10/714,628 | Applicant(s) MAEKAWA, KOJI | |
| | Examiner Brian Ensey | Art Unit 2643 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>11/18/03</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-7 and 9-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takahiro Japanese Patent Application Publication 10-234713 in view of Ono U.S. Patent No. 4,150,262.

Regarding claim 1, Takahiro discloses a listening device using an actuator for transmitting a voice signal through a human bone when contacting the actuator to a human body, comprising a holder for holding said actuator, said holder including a contact part for contacting said actuator to a human body part and a pivot part between said center of said contact point (See Figs. 1 and 2 and solution translation). Takahiro does not expressly disclose said holder includes a second contact part protruded at a spaced apart location from said first contact part. However, multiple contact earpieces are well known in the art and Ono teaches a listening device using an actuator for transmitting a voice signal through a human bone when contacting the actuator to a human body, comprising a holder for holding said actuator, said holder including a contact part for contacting said actuator to a human body part and a second contact part protruded at a spaced apart location from said first contact part (See Figs. 29 and 30 and col. 11, line 67 to col. 12, line 8). It would have been obvious to one of ordinary skill in the art at the time of the invention to

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utilize the headset mounting device of Takahiro with the multiple contact point earpiece of Ono for adjustment and comfort of the wearer.

Regarding claim 2, Takahiro further discloses said holder is supported such as to be rotatable around a shaft in said pivot part orthogonally to a plane containing said first and second contact parts and said pivot part (See Fig. 2).

Regarding claim 3, Takahiro further discloses said holder is supported in said pivot part at a distal end of an arm (23), said arm being supported at the other end thereof on a support member such that said holder is pressed against the human body part with a resilient bias applied through said arm (See Figs. 1 and 2 and translation paragraphs 22-30).

Regarding claim 4, Takahiro further discloses a resilient biasing member (12) in a supporting portion of said arm and said support member (See Figs. 1, 2, 5 and 6 and translation paragraphs 22-30).

Regarding claim 5, Takahiro further discloses said resilient bias is provided by a reaction force created in said arm.

Regarding claim 6, Takahiro further discloses said support member supports the other end of said arm rotatably such as to be capable of retaining said arm at any desired location and retracting said arm from the human body part (See Figs. 1 and 2).

Regarding claim 7, Takahiro further discloses said holder is detachably supported at the distal end of said arm (See translation paragraphs 0032 and 0033).

Regarding claim 9, Takahiro does not expressly disclose said actuator is of a type selected from the group consisting of electromotive, piezoelectric, electromagnetic, and magnetostrictive actuators. However, bone conduction actuators of electromotive, piezoelectric,

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electromagnetic, and magnetostrictive construction are well known in the art and Ono teaches a piezoelectric bone conduction element (See col. 13, lines 6-19). It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize any one of electromotive, piezoelectric, electromagnetic, and magnetostrictive actuators since they are readily available.

Regarding claim 10, Takahiro discloses a method of using a listening device having an actuator for transmitting a voice signal through a human bone when contacting the actuator to a human body, comprising the steps of: contacting a holder for holding said actuator to a human body part at two points, one at a contact part of said actuator and the other at another contact part at a spaced apart location from the contact part of said actuator; and rotating and supporting said holder around a shaft in a pivot part between said contact parts, said shaft being orthogonal to a plane containing said contact parts and said pivot part (See Figs. 1 and 2 and solution translation). Takahiro does not expressly disclose said holder includes a second contact part protruded at a spaced apart location from said first contact part. However, multiple contact earpieces are well known in the art and Ono teaches a listening device using an actuator for transmitting a voice signal through a human bone when contacting the actuator to a human body, comprising a holder for holding said actuator, said holder including a contact part for contacting said actuator to a human body part and a second contact part protruded at a spaced apart location from said first contact part (See Figs. 29 and 30 and col. 11, line 67 to col. 12, line 8). It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize the headset mounting device of Takahiro with the multiple contact point earpiece of Ono for adjustment and comfort of the wearer.

Regarding claim 11, Takahiro further discloses the steps of pressing said holder against the human body part with a constant pressure, and retaining said holder at a given location (See Figs 1 and 2 and translation paragraphs 0011 – 0013).

Regarding claim 12, Takahiro does not expressly disclose said actuator is of a type selected from the group consisting of electromotive, piezoelectric, electromagnetic, and magnetostrictive actuators. However, bone conduction actuators of electromotive, piezoelectric, electromagnetic, and magnetostrictive construction are well known in the art and Ono teaches a piezoelectric bone conduction element (See col. 13, lines 6-19). It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize any one of electromotive, piezoelectric, electromagnetic, and magnetostrictive actuators since they are readily available.

Regarding claim 13, Takahiro discloses a listening system using an actuator for transmitting a voice signal through a human bone when contacting the actuator to a human body, comprising: a holder including a first contact part for contacting said actuator to a human body part, a second contact part at a spaced apart location from said first contact part, and a pivot part between said first contact part and said second contact part; an arm for supporting said holder such as to be rotatable around a shaft in said pivot part orthogonally to a plane containing said first and second contact parts and said pivot part; a support member for rotatably supporting said arm such as to be capable of retaining said arm at any desired location and retracting said arm from the human body part; and a resilient biasing member provided between said arm and said support member so that said holder is pressed against the human body part with a resilient bias applied through said arm (See Figs. 1 and 2 and translation paragraphs 0022-0030). Takahiro does not expressly disclose said holder includes a second contact part protruded at a spaced apart

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location from said first contact part. However, multiple contact earpieces are well known in the art and Ono teaches a listening device using an actuator for transmitting a voice signal through a human bone when contacting the actuator to a human body, comprising a holder for holding said actuator, said holder including a contact part for contacting said actuator to a human body part and a second contact part protruded at a spaced apart location from said first contact part (See Figs. 29 and 30 and col. 11, line 67 to col. 12, line 8). It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize the headset mounting device of Takahiro with the multiple contact point earpiece of Ono for adjustment and comfort of the wearer.

Regarding claim 14, Takahiro does not expressly disclose said actuator is of a type selected from the group consisting of electromotive, piezoelectric, electromagnetic, and magnetostrictive actuators. However, bone conduction actuators of electromotive, piezoelectric, electromagnetic, and magnetostrictive construction are well known in the art and Ono teaches a piezoelectric bone conduction element (See col. 13, lines 6-19). It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize ant one of electromotive, piezoelectric, electromagnetic, and magnetostrictive actuators since they are readily available.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Takahiro in view of Ono as applied to claim1 above, and further in view of Nishimoto Japanese Publication H2-86359.

Regarding claim 8, Takahiro discloses a listening device as claimed. Takahiro does not expressly disclose the support member provided is to a part of a vehicle seat. However, the use of listening devices in vehicle seats is well known in the art and Nishimoto teaches a holder for an actuator at

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the distal end of an arm supported by a vehicle seat (See Figs. 1 and 3). It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize the listening device of Takahiro in the vehicle arms of Nishimoto for improved sound reception while in a vehicle.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Ensey whose telephone number is 571-272-7496. The examiner can normally be reached on Mon-Fri: 8:00 - 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curtis Kuntz can be reached on 571-272-7499. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

Or faxed to:


(703) 872-9306, for formal communications intended for entry and for informal or draft communications, please label "PROPOSED" or "DRAFT".

Hand-delivered responses should be brought to: Customer Service Window, Randolph Building, 401 Dulany Street, Arlington, VA 22314

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BKE
April 5, 2005


GEORGE ENG
PRIMARY EXAMINER